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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,957	01/13/2004	Durga P. Malladi	030224	4816

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QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER	
HUYNH, NAM TRUNG	
ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
03/05/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No.	Applicant(s)	
	10/756,957	MALLADI ET AL.	
	Examiner	Art Unit	
	NAM HUYNH	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7-12,18-23,29-34 and 39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,7-12,18-23,29-34 and 39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 11/18/09. Of the previously presented claims 1-44; claims 1, 7-9, 11, 12, 18-20, 23, 29-31, 33, 34, and 39 have been amended and claims 2-6, 13-17, 24-28, and 35-38.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 7-12, 18-23, 29-34, and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 12, 23, and 34 recite "determining the validity of a frame by analyzing the packet, if the packet in the frame is a zero-rate packet". This limitation implies that the frame validity determination is performed on the condition that the packet in the frame is a zero-rate packet, which is indefinite because analyzing the packet is being conditioned upon the analysis result (i.e. the frame is a zero-rate packet). For examination purposes, the amended limitations to the independent claims will be interpreted as "determining the validity of a frame by analyzing if the packet in the frame is a zero-rate packet, and analyzing a subpacket ID and a payload if the

packet is not a zero-rate packet", which is the examiner's best interpretation of the claim language.

Claims 7-11, 18-22, and 29-33 are rejected based on their dependence on the claims above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 7-12, 18-23, 29-34, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 6,208,699) in view of Kwon et al. (US 7,440,485).

Regarding claim 1, Chen teaches a method for evaluating packets and frames in a wireless communication system having a burst oriented channel (fundamental channel), and a corresponding rate indicator channel (control channel), the method comprising (column 4, lines 22-33):

monitoring the rate indicator channel (zero rate detection); and

determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel (Received frames are identified as "good" using a decoder which computes a quality metric and compares it to a threshold. The threshold renders the "maximum likelihood" that a packet is present); and

determining the validity of a frame by analyzing if the packet in the frame is a zero-rate packet or is not a zero-rate packet (column 9, lines 25-45; column 11, lines 19-67; column 12, lines 1-8).

Chen does not explicitly teach that a subpacket ID and a payload is analyzed if the packet is not a zero-rate packet. Kwon discloses an apparatus and method for communicating packet data control channel in a mobile communication system (title). Kwon teaches that control information for packet data includes a subpacket ID and payload (column 1, lines 55-67; column 2, lines 1-14). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Chen to allow the subpacket ID and payload to be analyzed, as taught by Kwon, if a frame is considered to not be a zero-rate packet in order to properly retrieve the data that was sent.

Regarding claims 7, 18, and 29, Chen teaches analyzing the packet further comprises decoding information on the burst oriented data transmission channel using the packet if the sub- packet ID and payload are not expected (column 9, lines 25-45; column 11, lines 19-67; column 12, lines 1-8).

Regarding claims 8, 19, and 30, Chen teaches analyzing the packet comprises comparing a sub-packet ID and a payload size of the packet to subpacket IDs and payload sizes of previous packets (column 11, lines 52-66).

Regarding claims 9, 20, and 31, Chen teaches comparing the packet with an expected packet type if the packet is a zero-rate packet (column 9, lines 25-45; column 11, lines 19-67; column 12, lines 1-8).

Regarding claims 10, 21, and 32, Chen teaches analyzing the packet further comprises detecting energy on the burst oriented data channel if the packet matches the expected packet type (column 9, lines 45-52).

Regarding claims 11, 22, and 33, Chen teaches determining the validity of a frame further comprises detecting energy on the burst oriented channel if there is no packet on the corresponding rate indicator channel and no packet was expected (columns 11-12).

Regarding claim 12, the combination of Chen and Kwon teaches a system for evaluating packets and frames in a wireless communication system, comprising:

a base station (Chen figure 1); and

a mobile station coupled to the base station via a wireless communication link (Chen figure 1);

wherein the base station is configured to receive data from the mobile station on a plurality of reverse-link channels on the wireless communication link including a burst oriented channel, and a corresponding rate indicator channel (Chen column 4, lines 22-33); and

wherein the base station is configured to monitor the rate indicator channel and determine the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel and determine the validity of a frame by analyzing if the packet in the frame is a zero-rate packet (column 9, lines 25-45; column 11, lines 19-67; column 12, lines 1-8), and analyzing a subpacket ID and a payload if the packet is not a zero-rate packet (Kwon (column 1, lines 55-67; column 2, lines 1-14).

Regarding claim 23, the limitations are rejected as applied to claim 12.

Regarding claims 34 and 39, the limitations are rejected as applied to claim 1.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 7-12, 18-23, 29-34, and 39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/
Examiner, Art Unit 2617